

A Development Analytics Dashboard For Apache CloudStack

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<http://bit.ly/cloudstack-dashboard>

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Structure of the presentation

- 1 Why a software development dashboard?
- 2 The CloudStack Development Dashboard
- 3 Browsing the data
- 4 Browsing the data: git
- 5 Browsing the data: Jira
- 6 Browsing the data: other
- 7 Bonus track
- 8 Final remarks





Why a software development dashboard?



Information about code, community, development
for open development projects
can be retrieved, organized, analyzed

Let's publish analytics results & data

Open Development Analytics: A new standard for transparency



Who makes a project successful?

Persons (and organizations) with

- different interests
- common goals

Need for coordination, common decision making

Availability of data as a tool:

- Transparency to the community (fairness)
- Transparency to third parties (trust)



- Development communities: companies and developers working together
- Policies, procedures, tools, source code... and development data
- Do they really provide enough data to enable assessment?
- Analysis of all repositories (data sources)...
- ...and associated information (eg: affiliation)



Examples of areas of interest

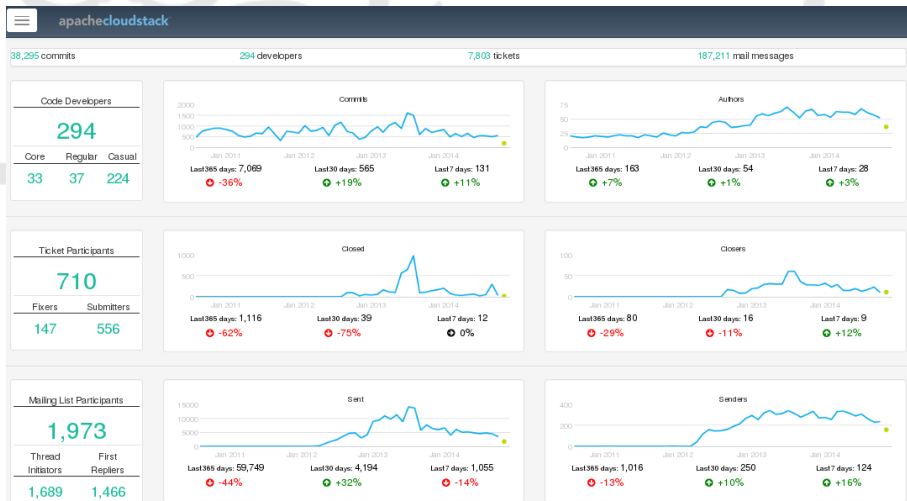
- Performance (understanding activity)
- Company participation (beyond copyright notices)
- Transparency (available information)
- Auditing (certify participation, experience, etc.)
- Profiling (key people, companies)
- Neutrality (fair treatment)






The CloudStack Development Dashboard

A Grimoire Dashboard for CloudStack



<http://projects.bitergia.com/apache-cloudstack> 

Tools: Grimoire system

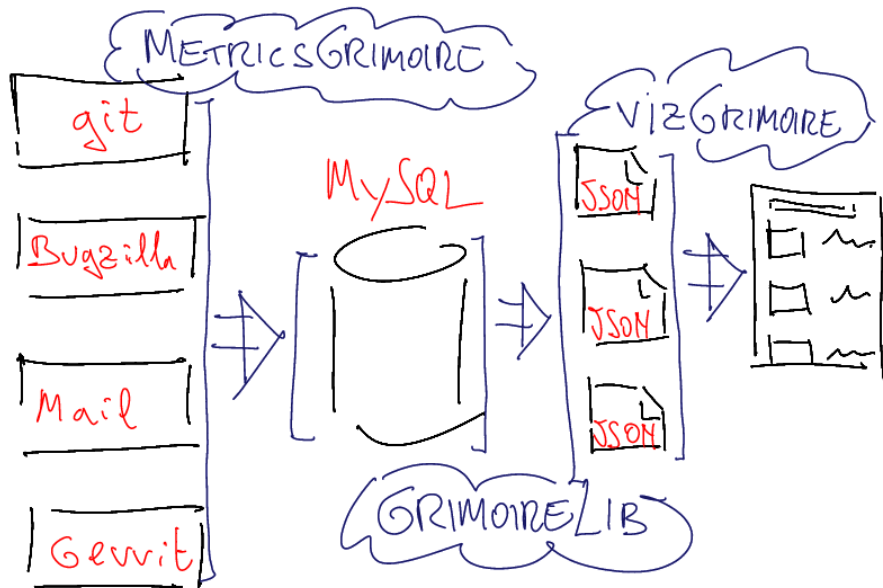
- MetricsGrimoire:
Free software for retrieving data from repositories
- vizGrimoire (GrimoireLib, vizGrimoireJS):
Free software for analyzing, visualizing data
- Grimoire Dashboard:
Many panels, different views of the project
(charts, summaries, statistic analysis)
- Commercially supported by Bitergia

<http://metricsgrimoire.github.com>

<http://vizgrimoire.github.com>



Tools: Grimoire system





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Browsing the data



Dashboard: main menu

Apache CloudStack

</> Source code management ▾

🔗 Tickets ▾

✉ Mailing lists ▾

💡 Studies ▾

Data sources

🏠 Project map



apachecloudstack

38,295 commits

Code Developers

294

Core Regular Casual

33

37

224

20X
15X
10X
5X

L



Dashboard: summary information

Code Developers

294

Core Regular Casual

33 37 224

Ticket Participants

710

Fixers Submitters

147 556

Mailing List Participants

1,973

Thread Initiators First Repliers

1,689 1,466

Last 30 days

Last 365 days

Complete history

#	Authors	Commits
1	Jessica Wang	74
2	Wilder Rodrigues	44
3	Girish Shilamkar	41
4	Edison Su	29
5	Rohit Yadav	27
6	Sanjay Tripathi	27
7	Daan Hoogland	26
8	Mike Tutkowski	26
9	Min Chen	26
10	Antonio Fornie	24



Dashboard: trend charts



Last 365 days: **163**

↑ +7%

Last 30 days: **54**

↑ +1%

Last 7 days: **28**

↑ +3%





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Browsing the data: git



Dashboard: commits



Source Code Management

4	repositories	0	companies
130.3	commits/author	276	files/author
131	commits last week	28	active authors last week

[Last 30 days](#) [Last 365 days](#) [Complete history](#)

#	Authors	Commits
1	Jessica Wang	4722
2	Alexa Prokhorchik	3149
3	Britan Federle	2295
4	Edison Su	1829
5	Anthony Xu	1567
6	Kelven Yang	1296
7	Prasanna Senthiran	1182
8	Sheng Yang	1155
9	Alex Huang	1087
10	Rohit Yadav	1077

<http://projects.bitergia.com/apache-cloudstack/browser/scm.html>



Dashboard: who is contributing

[Project Overview](#) / [SCM overview](#) / Activity by contributors

Filtered by repository:



Last 30 days

Last 365 days

Complete history

#	Authors	Commits
1	Jessica Wang	69
2	Wilder Rodrigues	44
3	Girish Shilamkar	41
4	Rohit Yadav	36

#	Authors	Commits
1	Girish Shilamkar	416
2	Min Chen	374
3	Jessica Wang	369
4	Rohit Yadav	353

#	Authors	Commits
1	Jessica Wang	4722
2	Alena Prokharchyk	3149
3	Brian Federle	2295
4	Anthony Xu	1567

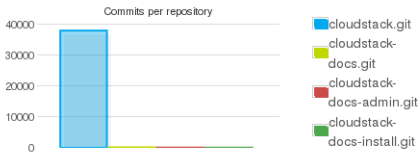
[CloudStack top authors in git (November 2014)]



Dashboard: commits by git repository

Some charts and tables for top repositories in the project, and a summary of the evolution of their participation with links to more detailed information per repository

« 1 (1 - 4/4)



Commits

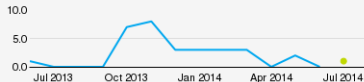
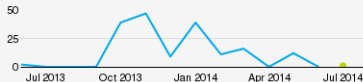
#1 cloudstack.git



Authors



#2 cloudstack-docs.git

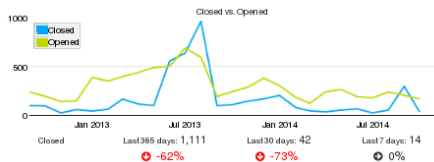




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Browsing the data: Jira

Dashboard: tickets



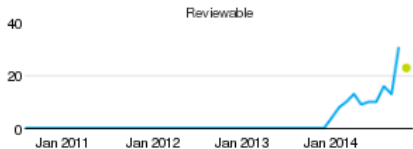
Issue tracking system

1	trackers	0	companies
556	people submitting tickets	147	people closing tickets
21	people submitting tickets last week	11	people closing tickets last week

Last 30 days [Last 365 days](#) [Complete history](#)

#	Closers	Closed
1	Jessica Wang	13
2	Salaja Mada	6
3	Rohit Yadav	3
4	Srikanteswararao Talluri	3
5	Chandan Purushothama	2
6	Pierre-Luc Dion	2
7	Santhosh Edukula	2
8	Anshul Gangwar	1
9	Bartek Sierakowski	1
10	Bharat kumar	1

Dashboard: ticket backlogs over time



Dashboard: age of current tickets by state



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current_Open



current_In Progress



current_Closed



current_Reviewable



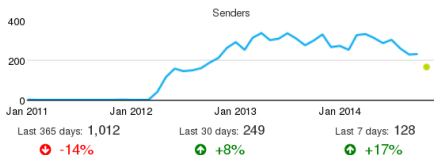
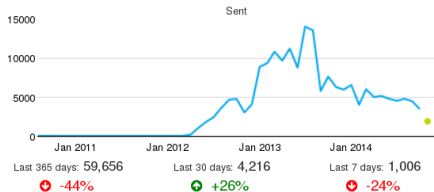


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Browsing the data: other



Dashboard: mailing lists



✉ Mailing Lists

7	repositories	1,006	messages last week
1,973	total partipants	128	participants last week

Last 30 days

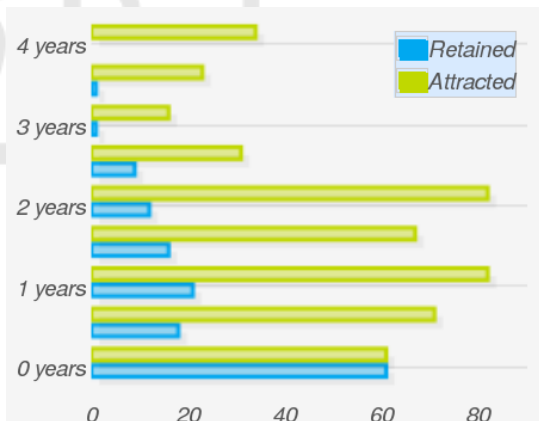
Last 365 days

Complete history

#	Senders	Sent
1	jira@apache.org	19147
2	Daan Hoogland	2995
3	Sebastien Goasquen	1464
4	Rohit Yadav	1346
5	Mike Tutkowski	1016



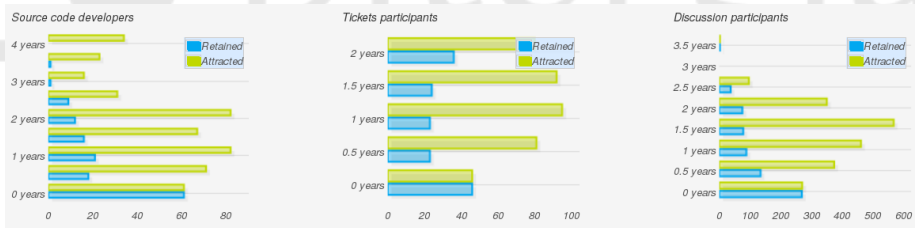
Dashboard: Attraction / retention (git authors)



<http://projects.bitergia.com/apache-cloudstack/browser/demographics.html>



Dashboard: Attraction / retention



<http://radar.oreilly.com/2014/10/measure-your-open-source-communitys-age-to-keep-it-healthy.html>



Dashboard: Profiling of contributors

Source Code Management

First contribution:

2010-08-12

Last contribution:

2014-11-12

Commits:

4729



Issue tracking system

First contribution:

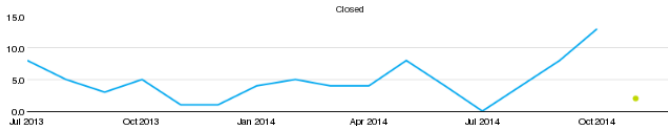
2013-07-12

Last contribution:

2014-11-12

Closed:

79



Mailing Lists

First contribution:

2012-05-11

Last contribution:

2014-11-12

Sent:

1448

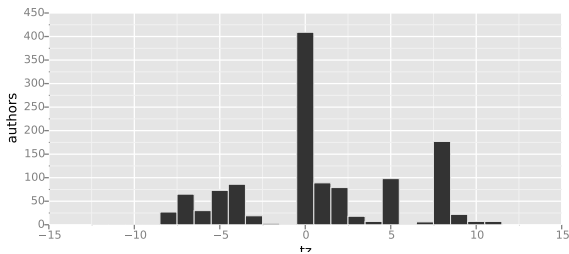
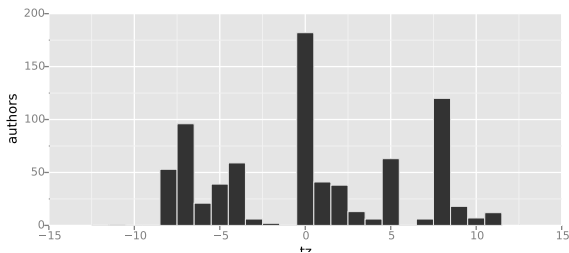




Bonus track



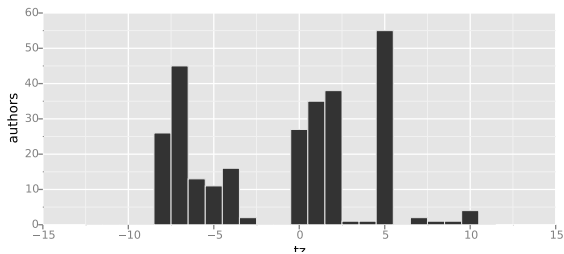
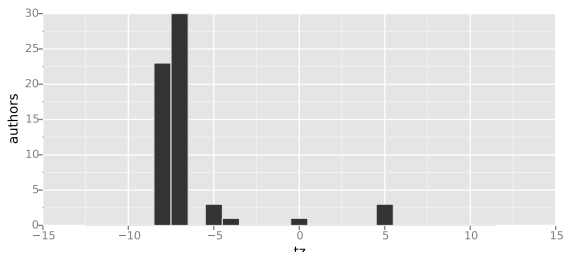
Time zone analysis (1)



[Posters in mailing lists per time zone (2012, 2014)]



Time zone analysis (2)



[Authors in git repos per time zone (2010, 2014)]





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Final remarks



Do you want to play a bit?

Do you want your own instance of the dashboard?

```
git clone https://github.com/Bitergia/apache-cloudstack-dashbo
```

Do you want the database dumps?

- <http://projects.bitergia.com/apache-cloudstack/browser/data/db/>
- Schemas available from MetricsGrimoire tools wikis at GitHub

Do you want the JSON files?

- <http://projects.bitergia.com/apache-cloudstack/browser/data/json/>
- Simple API, easy to get specific parameters



Still (and continuously)
fixing bugs,
adding new functionality
improving performance

Your feedback is welcome!!!

<https://github.com/Bitergia/apache-cloudstack-dashboard/issues>

